

Response to OA of June 2, 2004
Ser. No. 10/068,765

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AMENDMENTS TO THE CLAIMS

Please amend the claims of the present application as set forth below.

In accordance with the PTO's revised amendment format, a detailed listing of all claims has been provided. A status identifier is provided for each claim in a
5 parenthetical expression following each claim number. Changes to the claims are shown by strikethrough (for deleted matter) or underlining (for added matter).

Claim History Summary:

10 Claims 1-30 were originally filed.

An Office Action dated September 22, 2003 subjected claims 1-30 to a restriction and/or election requirement.

A response by Applicant filed October 23, 2003 elected Group I, claims
1-21 and withdrew Group II claims 22-30. Applicant further made a provisional
15 election of the species of Figure 10 for Group I claims 1-16 and 18-21.

An Office Action dated November 7, 2003 noted withdrawal of claims 17 and 22-30. In addition, the Office further withdrew claims 14-16 and 20-21 and rejected claims 1-13 and 18-19.

A response by Applicant filed February 9, 2004 canceled claims 4, 5 and
20 11 and amended claims 1, 6-10, 12 and 18; thus, claims 1-3, 6-10, 12, 13, 18 and 19 were pending.

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In an Office Action dated June 2, 2004, the Office rejected claims 1-3, 6-10, 12, 13, 18 and 19.

Claims 1-3, 6-10, 12, 13, 18 and 19 are pending.

5 Claim Summary of Present Response:

Claims 1, 10, 12, 13, 18 and 19 are currently amended.

Claims 4-5, 11, 14-17 and 20-30 are listed as cancelled.

Accordingly, claims 1-3, 6-10, 12, 13, 18 and 19 are pending.

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Detailed Listing of All Claims 1-30:

- Claim 1 (Currently amended): A heat exchanger comprising:
- a. a core having a thermally variable size; and
 - b. a support structure connected to the core, wherein the support structure comprises a tie rod having a planar section, positioned intermediate and amid a first end and a second end of the tie rod, that thermally deforms to accommodate variations in the size of the core.
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- 10 Claim 2 (Original): The heat exchanger of Claim 1, wherein the support structure thermally deforms at a rate at least similar to a rate of change in the size of the core.
- 15 Claim 3 (Original): The heat exchanger of Claim 1, wherein the support structure thermally deforms substantially the same amount as the thermal variation in the core size.
- Claims 4-5 (Cancelled).
- 20 Claim 6 (Previously presented): The heat exchanger of Claim 1, wherein the planar section of the tie rod thermally deforms at a rate so that the deformation of the support structure is substantially the same as the thermal variation in the core size.
- 25 Claim 7 (Previously presented): The heat exchanger of Claim 1, wherein the support structure comprises a plurality of tie rods, wherein each tie rod has a planar section.

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Claim 8 (Previously presented): The heat exchanger of Claim 1, wherein the planar section is substantially aligned with a flow passing the planar section.

5 Claim 9 (Previously presented): The heat exchanger of Claim 1, wherein the support structure further comprises a first strongback and a second strongback positioned about the core, wherein the tie rod is connected between the first and second strongbacks.

10 Claim 10 (Currently amended): A heat exchanger comprising:
a. a core having a first end and an opposing second end; and
b. a support structure, wherein the core is received by the support structure, wherein the support structure comprises:
i. a first strongback adjacent to the first end of the core;
ii. a second strongback adjacent the second end of the
15 core; and
iii. a tie rod having a planar section, positioned intermediate and amid a first end and a second end of the tie rod, mounted between the first strongback and the second strongback and capable of applying a compressive load to the strongbacks even upon normal operational thermal deformation of
20 the tie rod.

Claim 11 (Cancelled).

25 Claim 12 (Currently amended): The heat exchanger of Claim 10, wherein the tie rod further comprises a center section ~~and a first end~~, wherein the center section has a center section thickness, wherein the first end has a first end thickness, and wherein the first end thickness is greater than the center section thickness.

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Claim 13 (Currently amended): The heat exchanger of Claim ~~42~~10, wherein the tie rod further comprises a set of threads at the first end.

Claim 14 (Withdrawn). The heat exchanger of Claim 13, wherein the
5 threads have an inner thread diameter and an outer thread diameter, wherein the inner thread diameter is greater than the center section thickness.

Claims 14-17 (Cancelled).

10 Claim 18 (Currently amended): The heat exchanger of Claim ~~42~~10, wherein ~~the tie rod further comprises a second end opposing the first end, wherein the~~ second end has a second end thickness, and wherein the second end thickness is greater than the center section thickness.

15 Claim 19 (Currently amended): The heat exchanger of Claim ~~48~~10, wherein the tie rod further comprises a set of first threads at the first end and a set of second threads at the second end.

Claims 20-30 (Cancelled).

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